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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/067,680	02/04/2002	Tsung-Pei Chiang	B-4493 619511-2	7127

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EXAMINER

NGUYEN, KEVIN M

ART UNIT PAPER NUMBER

2629

DATE MAILED: 07/18/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 10/067,680	<b>Applicant(s)</b> CHIANG ET AL.	
	<b>Examiner</b> Kevin M. Nguyen	<b>Art Unit</b> 2629	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 05 May 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 12,13 and 16 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 12,13 and 16 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 04 February 2002 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

***Response to Arguments***

1. The status of claims: claims 12 and 16 are amended, claims 1-11, 14, 15, 17 and 18 are cancelled. Thus, claims 12, 13 and 16 are currently pending in the application.
2. Response to applicant's amendment and argument filed on 05 May 2006 has been considered, and is not persuasive. The applicant amended claims 12, 13 and 16 necessitated the new grounds of rejection.
3. Applicant amended claim 13; therefore, the rejection of claim 13 under 35 U.S.C. 112, second paragraph, is withdrawn.

***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claim 12 is rejected under 35 U.S.C. 102(e) as being anticipated by Moriyama (US 6,624,801).
6. As to claim 12, Moriyama teaches "a driving method for a Thin Film Transistor (TFT) array" [a TFT array 20, see Fig. 1A], "capable of saving power" [see col. 16, lines 44-45], comprising:

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“dividing a Thin Film Transistor array frame” *[at least a first frame FT, see Fig. 3A]* “into a first zone and a second zone” *[a first display region 31 and a second display region 32, see Fig. 6];*

Moriyama further teaches an alternative embodiment comprising “the first zone grouped into a graphic region and the second zone grouped into a non-graphic region” *[a difference of an aspect ratio on a screen (4:3 and 16:9) grouped into a dynamic picture (corresponding to a graphic region as claimed), and top/left and bottom/right portions grouped into a black portion (corresponding to a group of non-graphic region as claimed), see col. 18, lines 40-63 for further details of the explanation];*

driving the first and second zones respectively with line inversion and frame inversion *[the first display region 31 employs the row line inversion drive, and the second display region 32 employs the frame inversion driver, see Figs. 3A and 4, col. 16, lines 33-35 for details of the operation].*

### ***Claim Rejections - 35 USC § 103***

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 13 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Moriyama in view of An et al ([previously cited, US 6,335,719) hereinafter An.

9. As to claim 13, Moriyama teaches all of the claimed limitation of claim 12, except for “implementing an Application Specific Integrated Circuit chip to provide the line inversion and the frame inversion.”

However, An teaches a related TFT-LCD which includes “Application Specific Integrated Circuit chip to provide the line inversion and the frame inversion” (see *col. 6, lines 54-67 for further details of the operation*).

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to implement the Application Specific Integrated Circuit chip as taught by An in the LCD device of Moriyama in order to achieve the benefit of intend to drive the LDC device, because this would improve a good quality of a picture being displayed, while preventing a generation of a flicker noise independently of a pattern of the picture (see An, *col. 7, lines 1-5*).

10. As to claim 16, Moriyama teaches “a LCD display” [*a LCD device, Fig. 6, see col. 8, lines 43-45*], comprising:

“driver circuit determining into a first and second driving types” [*a shift register 40 drives the first display region 31 and the second display region 32, see Figs. 3A and 4, col. 16, lines 33-35*];

“a Thin Film Transistor array” [*a TFT array 20, see Fig. 1A, col. 8, lines 45-52*], comprising:

Moriyama further teaches an alternative embodiment comprising “a first zone driven with the line inversion and group into a graphic zone, a second zone driven with the frame inversion and grouped into a non-graphic region” [*a first portion is driving by a*

*line inversion and a difference of an aspect ratio on a screen (4:3 and 16:9) grouped into a dynamic picture (corresponding to a graphic region as claimed), a second portion is driving by a frame inversion and top/left and bottom/right portions grouped into a black portion (corresponding to a group of non-graphic region as claimed), see col. 18, lines 40-63 for further details of the explanation];*

Accordingly, Moriyama teaches all of the claimed limitation, except for “implementing an Application Specific Integrated Circuit chip determining the line inversion and the frame inversion.”

However, An teaches a related TFT-LCD which includes “Application Specific Integrated Circuit chip determining the line inversion and the frame inversion” (see col. 6, lines 54-67 for further details of the operation).

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to implement the Application Specific Integrated Circuit chip as taught by An in the LCD device of Moriyama in order to achieve the benefit of intend to drive the LDC device, because this would improve a good quality of a picture being displayed, while preventing a generation of a flicker noise independently of a pattern of the picture (see An, col. 7, lines 1-5).

### ***Response to Arguments***

11. Applicant's arguments filed 05 May 2006 have been fully considered but they are not persuasive. Applicant argues features in the amended claims 13 and 16 that are newly recited. Thus, new grounds of rejection have been moot. See rejection above. For these reasons, the rejection based on Moriyama and An has been maintained.

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12. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to KEVIN M. NGUYEN whose telephone number is 571-272-7697. The examiner can normally be reached on MON-THU from 8:00-6:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, a supervisor RICHARD A. HJERPE can be reached on 571-272-7691. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8000.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR.

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Status information for unpublished applications is available through Private PAIR only.

For more information about the Patent Application Information Retrieval system, see

<http://portal.uspto.gov/external/portal/pair>. Should you have questions on access to the

Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197

(toll-free).

KMN

July 12, 2006

Kevin M. Nguyen  
Patent Examiner  
Art Unit 2629

A handwritten signature in black ink, appearing to read 'R. Hjerpe', with a stylized, flowing script.

RICHARD HJERPE  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 2600